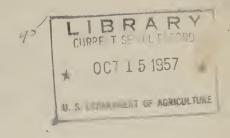
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THE EVALUATION OF PEACH LEAF CURL

ON

FOREIGN AND DOMESTIC PEACHES AND NECTARINES

GROWN AT THE

U. S. PLANT INTRODUCTION GARDEN, CHICO, CALIFORNIA

BY

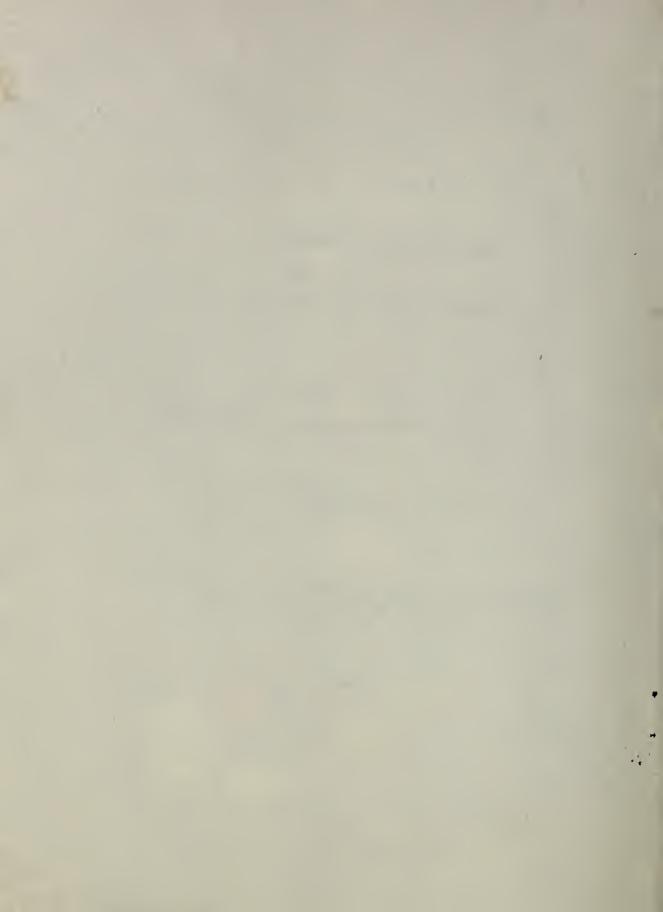
WILLIAM L. ACKERMAN

DIVISION OF PLANT EXPLORATION AND INTRODUCTION

A Report Prepared as a Cooperative Service to the States of the Western Region

Bureau of Plant Industry, Soils and Agricultural Engineering U. S. Department of Agriculture

January 1953



31112

The Evaluation of Peach Leaf Curl on Foreign and Domestic Peaches and Nectarines

By William L. Ackerman, U. S. Department of Agriculture, Chico, California

A severe peach leaf curl epidemic developed during the 1952 season in orchards of the U. S. Plant Introduction Garden at Chico, California. In most years infection has been sparse and inconsequential on all but the more susceptible types. This has been due either to timely applications of dormant copper sprays or extended, warm, dry periods during the more susceptible stages of bud opening and leaf development. However, throughout the winter of 1951-1952 cold and especially wet weather persisted from late October until the middle of March that favored development of this epidemic. Ground conditions were such that it was impossible to move spray equipment through the orchards during this time. Consequently, no dormant spray was used for control of the disease since all but the most dormant varieties were too far advanced in foliation when the ground firmed in the latter part of March.

While the relative susceptibility to leaf curl of most nectarine and peach varieties of domestic origin has been established, apparently there is but little published information concerning most foreign varieties. The 1952 epidemic was therefore considered as an excellent opportunity to evaluate the many nectarine and peach seedling and variety introductions for their susceptibility to leaf curl under the conditions existing at that time. This report presents the results of that survey along with the ratings for a number of domestic varieties carried both as standards of comparison and as part of a plant quarantine program.

For ease in recording and tabulation, leaf curl symptom expression was based on a numerical scale ranging from 0 to 5 in ascending order of susceptibility. The approximate percentages of all leaves showing leaf curl symptoms were arbitrarily assigned as follows:

O - No visible signs of leaf curl observed

0/1 - Inconclusive trace of leaf curl observed

- Up to 20 percent of all leaves showing some symptoms of leaf curl

2 - 21 to 40 " " " " " " " " "

The O/l category is included for a group of introductions in which one individual of a pair was classified as free of leaf curl while the other individual showed inconclusive indications of probable infection.

It should perhaps also be noted that the ratings provide a rough approximation of the severity of infection of individual leaves as well as the number of infected leaves involved. Thus for a low rating, the areas of infection were generally small while a high rating variety would not only have infection on practically every leaf, but more of the areas of infection would generally be

large. As would be expected, defoliation was both rapid and severe on many high rating varieties. Although no record was kept of the individuals involved, it is of interest that quite a number of the seriously affected varieties retained many of their older infected leaves and showed continued infections of new leaves as late as the latter part of July.

The time of first leafing of individuals is included where such information is available. Because circumstances did not permit recording the date of first leaf in all cases for 1952, and since there was a close correlation between 1951 and 1952 foliation, similar data for 1951 is also included to make the record as complete as possible.

The seedlings in Table 1 are listed as peach or nectarine from fruit description data for the individual seedling trees. Where this information is not available, either because the trees have not as yet fruited or other reasons, the seedlings are listed as (peach?) and (nect2) according to the data on parentage supplied by the explorer.

Table 2 summarizes those peaches and nectarines for which are available first leafing data for 1952. This tabulation covers the period of first leafing from and including March 13 to March 28. The peach and nectarine individuals in Table 2 are separated into the seven leaf curl rating groups. Within each rating group is recorded, by accumulated percentages, a tabulation of those individuals which had come into first leaf on and before each successive date. These percentages, therefore, represent foliation data within leaf curl rating groups. For instance, only 3.3 per cent of the 211 individuals in leaf curl rating I were in first leaf by March 17 and not until March 25 had 90 per cent or better come into first leaf. On the other hand, 35.7 per cent of the 126 individuals in rating 5 were in first leaf by March 17 and better than 90 per cent were recorded as early as March 21. In other words, those individuals appearing in the earlier portion of the first leafing period were generally more affected by leaf curl than those which were later in coming into first leaf. In spite of this trend, there were individuals within the less susceptible leaf curl groups which came into first leafing early. This would indicate that there are other factors present besides the time of first leafing which affect the degree of peach leaf curl infection.

Prevailing weather conditions at the time of first leafing greatly influence the development of the disease. Climatic conditions recorded during this period are therefore incorporated along with the other data in Table 2. As can be seen in the table, there was cool, wet weather with high humidity during the earlier period of first leafing when greatest infection appeared.

The type of foliar glands was recorded for the large majority of individuals listed in Table 1. Two types of leaf glands are recognized - reniform (kidney-shaped) and globose (round). Certain varieties have no leaf glands and are called eglandular (1). A number of peach and nectarine individuals were found which contained distinct forms of both reniform and globose gland types. These individuals were classified separately under a group termed reniform-globose. Correlations between the presence or absence of leaf glands and susceptibility to attacks of peach leaf curl and certain other diseases and insects have been

noted by several investigators. Hesse and Griggs (3) report H. S. Rivers (4) found that varieties with remiform or globose glands are more susceptible to peach leaf curl than those varieties with eglandular type leaves. The data reported in this paper supports that observation.

In Table 3 separate summations for peach and nectarine are presented, each divided into its respective gland types with the accumulated percentages of individuals within any one gland type tabulated in progression of their susceptibility to leaf curl. The data suggests that the susceptibility of both peaches and nectarines to leaf curl is in the following ascending order: (1) eglandular, (2) globose, (3) reniform and (4) reniform—globose. It was also noted that in most cases for any particular gland type, individual nectarines were less affected by leaf curl than individual peaches of the same gland type.

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- 3. Hesse, C. O. and Griggs, W. H. The affect of gland type on the wettability and water retention of peach leaves. Proc. Amer. Soc. Hort. Sci. 56: 173-180. 1950.
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TABLE I - Leaf curl susceptibility, date of first leafing and leaf gland types of a group of peaches and nectarines.

Rating O							
		·	and the second s	-		_	Leaf
					First Lea		gland
P.I.	Received as Clone -	Source - R	ating -		1952		type (1)
C27178	Peach x Almond			P-24-32	3/16	3/11	
C27178	88 88			P-24-33	3/13	2/23	
C271.78	83 98			P-24-34	3/12	2/23	
C27178	11 88			P-24-35	3/13	3/2	
66094	Galande	France		E-7-17	3/24	3/28	G
91762	Precoce d'Ampuis	Portugal		E-8-33,34	3/24	3/28	G
101835	33 11	Morocco		E-6-27, 28	3/24	3/25	G
111917	Downing	Australia		E-2-33,34	3/24	3/25	G
113650	Pollardi	Italy		E-13-10,11	,	3/12	G
126990	Schorlemer	Germany		E-14-40		3/26	G
129608	Albert Victor (nect)Australia		E-25-13,14		3/21	E
1.2961.3	Lippiats Prolific(n	ect) a		E-23-30,31		3/23,21	R
129818	Hunt's Tawny (nect)	11		E-25-21,22		3/20,21	E
131845	Brugnon Galopin (ne	ct)France		D-40-27, 28		3/21	E
132007	Rheingold	Germany		D-44-40		3/20	R
132739	Erica Rudolph	88		D-44-42,43		3/22,20	G
135643	Willermoz(Early Cra	wford) Fran	Ce e	D-40-25,26		3/18,16	G
136241	Belle de Louvecienn			E-7-1,2	3/24	3/27	E
141116	Sdlg. (3)(nect)	Iran (2)		J-J-23		4/1	R
141208	Amy. persica rosea						
·	0 . 2	England		D-40-12		3/26	R
141.208	82 33	11 11		D-45-32A		3/18	R
		Ra	ting 0 8	<u> 0/1</u>			
78513	Yennoh	U.S.S.R.	0	E-4-35	3/24	3/25	G
78513	T CITYLOGY	8 De Dorro	0/1	E-4-36	3/25	3/25	Ğ
105109	Alexis Lepere	Italy	0	D-44-39A,40A	21-2	3/20,18	Ē
105109	#revre nobere	11 Otal.y	0/1	E-10-29	3/23	3/21	Ē
110202	Perla Di Zolia	88	0	E-2-32	3/17	3/19	G
110202	a. a. a. vorre	53	0/1	E-2-31	3/19	3/19	Ğ
130966	Belle De Sanzy	r'rance	0	E-11-15	3/17	3/20	R&G
130966	Darre De Dansh	li anos	0/1	E-11-14	3/22	3/20	R&G
131209	Pineapple (nect)	England	0/ 32	E-23-32	27 100	3/26	G
131209	II II	Fileraise	0/1	E-23-33	3/26	3/26	G
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Key to Abbreviations

- (1) Leaf gland types
 - E Eglandular G - Globose

 - R Reniform
 - R&G both Reniform and Globose glands present

- (2) Seed
- (3) Selected seedling
- (4) (peach?) received as peach seed, but not verified by fruiting data.
- (nect.?) received as nectarine (5) seed but not verified by fruiting data.

Rating 0 & 0/1 (contd)

		1000 (01.00	50 00 0/1	(001104)			Leaf
					First L	eafing	gland
P.I.	Received as Clone -	Source -	Rating -	· Location	1952	1952	type(1)
131789	Girerd #23	France	0	E-6-1.	3/23	3/26	G
131789	99	82.	0/1	E-6-2	3/23	3/26	G
131.794	Juliette de Saumach	ez II	Ó	D-45-5A	-, -	3/21	E
131794	11 33	11	0/1	E-6-31	3/21	3/25	E
132742	G. X.	Germany	o o	E-19-35	3/25	3/25	G
132742	ti	33	0/1	E-19-36	3/23	3/25	G
133551	Peregrine	Australi		E-12-32	-, -	3/29	G
133551	11	88:	0/1	E-12-31		3/29	G
134667	Henri Adenot	Switzerl	and O	E-20-20	3/26	3/27	G
134667	31 11	35	0/1	E-20-19	3/25	3/27	G
136151	La Plus Précoce de						
	Saumachez	France	0	D-45-22		3/20	G
136151	11 11 88	33	0/1	D-45-23		3/19	G
			·			·	
			D				
			Rating 1				
C24982	Elborta modding			E-15-9,10	3/23	3/18,25	C
	Elberta seedling Cardinal (nect)	U.S.A.		E-23-6	3/26	3/21	G R
C26651	Gower (nect)	11		E-8-24	3/22	3/20	E
c26651	n n	11		D-1:11-11A	3/66	3/15	E
027124	Libbee	11		E-8-25		3/20	R
C27154	Farida	19		D-39-33,34		3/16,15	R
C27156	Florence	ţI		D-44-5A		3/16	R
027156	ii Lioi errea	31		D-40-43		3/21	R
C27166	Leeton	91		D-39-39,40		3/16,17	R
C27182	Meadow Lark	11		D-44-2		J/ 4.0 9 4.1	G
C27355	Peach 40015-22	11		D-43-3,3A		3/24	R
027356	Silver Lode (nect)	381		D-43-4,4A		3/12	R
43129	Late Champion	New Zeal	and	E-4-1,2	3/20,21		R
43142	Lippiatt's Late Ora			E-23-14,15	J, 20 3 2.112	3/21,22	E
43146	Sure Crop (nect)			E-24-21,22		3/20	R
48508	Indian Blood	U.S.A.		E-8-39,40	3/23	3/25	E
55813	Freeman Free	11		E-2-3,4	3/20,21		R
57918		New Zeal	and	E-2-5,6	3/23,22		R
65977	Gialla Di Padova(ne			E-23-42,43	3/26,23	3/26	R
65978	Regina Vittoria (ne			E-23-24,25		3/20	G
	Vineuse Henri Monic	ourt(nect) #	E-25-9	3/25	3/27	R
66091;	Galande	France		E-7-18	3/23	3/28	G
68178	Nectarine (unknown)			E-25-11,12	3/24,25	3/27	R
68352	Pullar's Clina	Australi	a	E-4-23,24		3/23,19	R
68353	Golden Queen	11		E-4-25,26	3/22,20		G
68354	Goodman's Choice	11		E-4-27,28	3/21	3/19	R
74011	Pineapple (nect)	U.S.A.		E-24-5,6	3/25	3/25	G
74011	11	11		D-12-13,14	3/27	3/21,19	G
74011	11 11	11		D-44-26A, 27		3/15,22	G
77625	Early Rivers (nect)	England		E-23-26,27	3/23,24		R
77625	11 11 11	11.		E-23-36,37	3/25	3/26	R

		Ra	ting l (c	ontd)			Leaf gland
ъ. т	D	G	Dahi	Panakias	First Lea		type(1)
P.I. 77626	Received as Clone -		Rauling -		1952	1951	70
* *	John Rivers (nect)	England		E-23-29		3/26 3/26	R
77626		ų s		E-23-38,39	3/26,24	3/20	R
78545	Giallona di Napoli	Titalian		r 10 02		3/18	מ
801.70	O Terzarola Cavallara Baladi		~ (2)	E-13-38	2/27	3/18	R
82413		Palestine		E-11-6,7	3/21	3/15	E
8427 <u>3</u> 88545		U.S.S.R.	(2)	D-10-7 D-44-28A, 291		3/16	170
88545	n n	New Zeala	and	D-25-2		3/17	E E
88565	Pineapple (nect)	m m		E-24-20	3/24	3/24	G
88565	u u u	11 11		D-8-6	2/64	3/19	G
88565	88 89	92. 11		D-44-36,36A		3/18,1	
93826	Inkoos	South Afr	ന് രമ	E-10-5,6	3/23	3/20	E
99243	Dripstone	Australia		D-1-17,18	الهي عمل کي کمي	3/8	R
99243	18.	II		E-15-13, 14		3/18	R
101663	Ta Tao or Fei#l	China		E-5-4,5		3/27	R&G
1.01.664	Ta Tac or Fei #2	FI .		E-5-6,7		3/27	R
101665	Ta Tao or Fei #3	ü		E-5-8,9	3/27	3/27	R
101667	Ta Tac or Fei #5	119		E-5-10,11	3/27	3/27	R
101668	Ta Tao or Fei #6	11		E-5-13		3/28	R
101669	Ta Tao or Fei #7	83		E-5-14,15	,	3/28	R
101674	Ku Chua Hung #12	£1		E-5-16,17	3/25	3/28,3	O R
101675	Ku Chua Hung #13	88		E-5-18,19		3/28	R
191676	Ku Chua Hung #14	£1:		E-5-20,21		3/28	R
101678	Ta Tao or Fei #16	11		E-5-21, 25	3/25	3/30,2	
101681	Ta Tao or Fei #19	8.8		E-5-28,29	3/25	3/27	R
101682	Ta Tao or Fei #20	13		E-5-30,31	- (- () (-	3/28	R
101684	Ta Tao or Fei #22	17		E-5-32,33	3/26,4/9	3/28	R
101686	Ta Tao or Fei #24	11		B -5-36	a 100	3/28	R
101686	11 11 11 11	§ \$		D-10-11	3/28	3/21	R
101687	Ta Tao or Fei #25	f1.		E-5-38,39	3/26	3/28	R
101823	Bienvenida	Morocco		E-6-6	3/24	3/24	G B
101824	Brugnon Adele	88:		E-6-7,8 E-6-13,14	3/23 3/21/20	3/24 3/19,2	R 5 G
101830	De Reus Infante Elizabeth	11		E-6-19,20	3/21,22	3/19	G
102403	Grossa Montagna	Italy		E-6-39,40	If books 9 beates	3/19	G
102521	Giallona Di Papigno	11		E-7-15, 16	3/19,22	3/20	R
102524	Isonzo	E 5:		E-7-19, 20		3/28,2	
104484	Carota	821		E-10-13,14	3/21,22	3/25	- 10
104486	Cotogna di Siena	13		Nurs E2(B)W	<i>y,</i> y	100 8	R
104494	Santa Anna Giallo	11		E-10-27	3/21	3/20	R
104494	11 11 91	88		D-41-29		3/16	R
105110	Arthur Chevreau	2.2		E-10-31,32	3/25/22	3/24	G
105111	Baltet	ff		E-3.0-33	3/22	3/24	E
105116	Cotogna Massima	\$ \$		E-10-39,40	3/22,23	3/20	R
105118	Poppa di Venere				* *		
	d'Ognissanti.	\$1		E-9-14,15		3/25,2	
105121	Sanguigna	88		E-11-2,3	3/20,23	3/25	R
105122	Senator Carlo Ridolfi			E-14-34,35	3/22	3/26	R
105362	Genovese	88		E-11-10,11	3/26,24	3/25	E

Rating 1 (contd)

Leaf								
				First Lea	afing	gland		
		Source- Rating .	Location	1952	1951	type(1)		
P.I.	Received as Clone		E-9-20,21	3/22,20	3/27,20	R		
105364	Incomparable Guilloux	•	E-11-24,25	3/18,19	3/20	R		
105373	Poppa di Venere Tardi	ve	E-11-26,27	3/23,22	3/20	R		
105374	Re Umberto	Argentina (2)	Nurs.E-2(B)	21-23	-0	R		
105464	Seedling (3) FL/39	Higenania (2)	Nurs. E-4(D)			R		
105464	" F4/43	11 11	Nurs.E-2(B)W	1.		R		
105465	" F4/45	Australia	E-2-25, 26		3/3	E		
1.05843	Edward VII	Was or arra	E-11-40		3/29	R		
105851	Rowe's Champion	11	E-24-33,34	3/24,25	3/24	R		
105856	Les's (nect)	11	E-24-11,12	3/21,20	3/24	R		
105858	W.C.Fripp (nect)	Italy	E-12-17,18	3/24,22	3/27	R		
110201	Paviagialla	Australia	F-21-15,16	3/22	3/25	R		
111112	Irrewarra (nect)	Hus or serve	E-24-37,38	5/	3/21	R.		
111923	Ben's Rick (nect)		E-3-33,34	3/24,25	3/28	R		
126560	Vaughn	U.S.A.	E-3-3,4	3/22,23	3/24	G		
126563	South Haven	Australia	Nurs. El(A)W		-, .	R		
129611	Gigantic (nect)		E-14-38,39	3/24,22	3/26	R		
126989	Kerneshter von Vorgeb	it de der many	D-44-44A	2) 3	3/20	G		
126990	Schorlemer "2	France	E-14-43	3/23	3/20	G		
127350	Gaillard-Girerd #2	U.S.S.R.	E-15-5,6	3/23	3/20,24	R&G		
128547	Clone #1376		E-24-23, 24	3/23,25	3/21	R		
.2961.0	Fertile du Poitou(nec	Australia	E-11-8,9	3/19	3/20	E		
12987.0	Noonan	Australia	E-18,19-43	3/25,23	3/25.26	G		
129871	Palora	74	E-19-5,6	3/22.23	3/20,26	R		
129816	Yarra Yarra	England	E-11-30,31	3/23,25		R		
130896	Duke of York	Firstair	E-19-7.8	3/2/4,25	3/26	R		
130897	Golden Eagle	19	D-43-10,10A	21 -45-2	-,	E		
130899	Magdala	11	E-25-23, 24	3/23,24	3/25	G-		
130903	Humbeldt (nect)	1.	D-40-33, 34	J,,	4/2	R		
1,30901	Newton (nest)	11	E-25-35	3/24	3/27	G		
130905	Spenser (nest)	11	D-44-43A	J,	3/20	G		
130905	11	France	E-11-32,33	3/24,22		R		
130968	Gui loux 41		E-6-10-11	3/17,20		R		
130980	Proskauer	Germany England	E-19-19,20	3/23,24		R		
131069	James Walker	Firstand	E-25-27,28	3/24,21	3/27	R		
131.073			E-25-29,30	3/20	3/26	G		
131074		Mexico (2)	J-11-4	3/21	3/14	R		
131177		England	E-5-1,2	3/26,25	3/25	R		
131430		France	E-11-41,42	3/21,18	3/20	G		
131473			E-25-33,34	3/23	3/20,21	. G		
131551	Fernand Demeyer (nec	France	E-19-25,26	3/20,22	3/26	R		
131779	Angevine Hative	II.	D-39-16,17		3/15	R		
131.780		51	D-39-37,38		3/15,16	G		
131.788		it.	E-9-11		3/20	G		
131790		4	D-44-45A		3/14	G		
131790			E-12-3,4	3/23,24	3/25	R		
131792) []	E-19-31,32	3/21,19	3/18	R&G		
131799	Tardive d'Orleans		E-7-9,10		3/20	R		
131802		Germany	D-44-38,39		3/17,11			
132009		U.S.S.R.(2)	J-14-31		3/16	R		
132171		0.53551111	J-14-35		3/14	G		
132172	11							

Rating 1 (contd)

			etterpris /		T _i e	af
				First Le		and
P.I.	Received as Clone	Source - Rating	- Toestion	1952		pe(1)
132175	Sdlg.cf Geokchaisky		J-14-39	3/21		R
		Delly U.S.S.R.(2)		3/20	3/15	
132176	" of Gudantsky		J-14-41		3/17	R
132466	Neige	France	E-7-39,40	3/24,23	3/28	R
132535	Late Admirable	England	D-lift-ft]		3/14	G
132740	Frau Marie Rudolph	Germany	D-39-3,4		3/23,21	E
132741	Girard #1	11 .	E-7-41-42	3/21,23	3/27	G
132743	Luckenbusser	22	E-19-37.38	3/25	3/28	R
133497	Bell's November	Australia	D-39-1,2		2/13,15	
133498	Black Braddock	žž.	E-12-7,8		3/18,20	E
133499	Braddock Imperial	11	D-40-8		3/21	E
133499	11 11:	11	D-45-11A		3/22	E
133503	Italian Slip	ti	E-12-11,12	3/22	3/21	R
133504	King of All	11.	D-39-45,46	2/22	2/20	E
133506		11	E-12-13,14	2/22 21.	3/27,20	E
	Mannell's Slip	îi	D-39-9,10	2/22024	2/41,40	
133510	Rennie	33		2 /01 02	2/13,11	E
133549	Ireland's Seedling		E-12-27,28		3/25	G
133552	Pickering	11	E-12-33,34		3/27	G
133555	Webb's Seedling	11	D-110-110, 117		3/21,22	G
133557	Fripp's Late (nect)	11.	E-25-37,38		3/21	R
133558	Victoria Rivers (nec	et) "	E-25-39,40	3/23	3/24	R
133558	11 11 11	31	Nurs El(A)			R
133747	Zerbes	11	E-13-4,5	3/24,23	3/25	G
133846	Free King	New Zealand	E-13-14,15	3/22,23	3/25	R
133859	Goodhue	8.9 89	E-20-9,10	3/21	3/26	R
1.33913	Golden Queen	Australia	E-4-5,6	3/24,23	3/25	G
133918	Marina (nect)	11	E-25-41,42		3/24	R
133974	Seedling	Punjab (2)	J-14-42	3/18	3/15	R
	Nooiens (Herholdt's		E-8-17,18	27 220	3/12	E
133987	•	S.Africa	D-45-19A, 2	ž	3/14	R
133992	Van Rensburg		D-9-3	al,	3/12	R&G
134151	Seedling (3) of 8763	3 " (2)			3/12,10	R&G
134151	g;		E-20-1,2		3/15,16	E
135993	Noblesse	England	D-40-23, 24			
135993	8 \$	18:	E-8-42,43	3/10	3/20,25	E
136145	Belle Illoise	France	E-7-7	3/23	3/20	R
136148	Girerd #.	11	D-45-20A	. /->	3/14	G
136148	11	18	E-8-2	3/24	3/26	G
136149	" #23	88	E-8-19,20	3/23,22	3/26	G
136150	Henri Adeno	31	D-40-38,39		3/19,27	G
136414	Barrington	England	D-39-21	3/28	3/15	G
136414	11	11	I-45-22A		3/15	G
136579	Belle Beausse	France	D-40-9,10		3/15	G
141087		Iran (2)	J-16-42	3/22	3/16	R
	li Seerrriik	11 11	J-16-14	3/23	3/17	R
141087		11 13.	J-I-60	21-2	or 1 0	R
141087	11	11 11	J-L-9			R
141109	11.	81 22	J-L-l		3/16	R
141109	11			3/20	3/16	R
141110	#	\$1 11 	J-G-105		3/16	n R
141115	" (nect)	11 11	J-H-6	3/21	2/20	n

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Rating	1	(contd)
1000		(001100)

							Leaf
					First Le		gland
P.I.	Received as Clone		Rating -	Location	1952	1951	type(1)
141115	Seedling (nect)	Iran (2)		J-H-7	3/20	3/17	R
141115	и и	11 11		J-H-25	3/19	3/14	R
141115	11.	££ 11		J-H-62	3/19	3/18	R
141115	11 11	11 19		J-H-72		3/20	R
141115	ппп	11 11		J-H-51	3/19	3/17	R
141115	ff. ff.	11 11		J-H-56	3/18	3/18	R
141115	11.	11 11		J-H-59		3/17	R
141115	tt tt	11: 11		J-H-61		3/19	R
141116	11	11 11		J-J-28		3/30	R
141116	11 11	11 11		J=1-30		3/20	R
141116	11 11	11 11		J-J-32		3/16	R
141118	ti ii	11 11		J-J-67		3/20	R
141119	11 11	11 11		J-H-46		3/15	R
141119	n n	11 11		J-H-64	3/20	3/13	R
141119	II II	11 11		J∞H-70	3/21	3/14	R
141204	A.persica foliis purpu	reis Engl	and	D-38-36		3/15	R
141204	11 11 11	11		D-38-37		3/15	R
141207	" pendula rose	a "		D-40-3		2/21	R
141207	11 11 11	Ħ.		D-40-4		3/16	R
142236	Vanguard	Canada		E-9-12,13	3/21,20	3/20,2	4 R
143345	Seedling	Iran (2)		J-I-89	3/13	3/14	E
143345	ft:	n n		J-I-94	3/19	3/15	E
143345	11	11 11.		J-I-100	3/17	3/15	E ·
143345	11	11 11		J-I-88		3/17	E
143740	Fair's Beauty	U.S.A.		D-41-33,34		3/16,1	.5 R
143743	Sunglo	11		D-41-31,32		3/15	G
143911	World's Earliest	11		E-7-5,6	3/21,20	3/26.2	5 R
145998	Seedling	Iran (2)		P-22-22	3/19	3/21	R
145998	11	11 11		P-22-24	3/17	3/20	R
146007	11	11 11		P-22-66	3/17	3/20	R
146014	" (nect)	n n		P-23-38		3/26 3/23	R
146020	12. 11	11 12		P-23-7		3/23	R
146020	n n.	11 11		P-23-8		3/20	R
146022	ti ti	11 11		P-23-46		3/22	R
146025	11 11	11 11		P-22-31		3/24	R
146027	" (nect.?)	11 11		P-20-43	3/20	3/23	R
146027	" (nect.?)	11 11		P-20-44		3/25	R
146032	Seedling	11 11		P-22-46	3/14	3/18	E
146035	" (nect)	11 11		P-24-28		3/21	R
148268	Shipper's Late Red	U.S.A.		E-12-43		3/27	
149312	Dixigem	111		E-14-6	3/22	3/20	R
151158	Royal George	England		D-45-31,32		3/18,1	
158367	Goodcheer	U.S.A.		D-43-13			R&G
158368	Summer Rose	11		D-43-13A, 1	4	3/13	R

Rating 2

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ът		Commercial Dadison	Paration	First Lea		gland	
P.I.	Received as Clone -			1952		type	(1)
C25875	Peaks	U. S. A.	D-46-6A		3/15	E	
C27146	Early Rochester	91	D-39-43,44		3/20,18 3/15	R	
C27151	Elberta	11	D-39-5.6			R	
C27155	Ellis	08	D-40-42,44		3/18,16		
C27157	June Elberta	fs.	D-39-31,32		3/20,18	G	
C27158	Nestor	99	D-40-21,22		3/17,16	G	
C27167	Penryn	81	D-39-35,36		3/17,18	R	
C27184	Redwing	81	D-111-5,6		3/12,14	R	
C27354	Altair peach		D-43-2,2A		3/15	R	
26503	Seedling	India (2)	D-30-1.7		3/21	R	
38469	Reicheng Ldlg.	China (2)	D-16-6		3/21	R	
43140	Diamond Jubilee (ne		E-23-12,13	2/22	3/20	R	
43568	Sdlg.of Tardio Enca		E-13-34,35	3/22	3/25	R	
57915	Lord Kitchener	N. Zealand	D-39-11,12		3/13,14		
63851	Shalil	India (2)	D-16-14		3/16	R	
65974	De Coosa (nect)	Italy	E-24-25, 26		3/20	R	
65974	98 81 81	81	D-11-19		3/12	R	
65974	\$1 FF. 32	£1	D-44-24A, 251		3/13,16		
77876	Tos China #1	98	E-4-29,30	3/21,20	3/17,19	R	
86299	Seedling	Persia (2)	D-10-12	3/28	3/20	R	_
88561	Dargaville (nect)	N.Zealand	D-44-32		3/13	R&C	
88561	11	83	E-211-2	. /	3/19	R&C	
88562	Dryden(nest)	ß.	E-24-3,4	3/22,23	3/19	R&C	
38563	Gold (nect)	91	Nurs.E3(C)			R&C	Ì
88564	John Rivers (nect)	73	D-44-32A, 331	A	3/21,20		
88564	85 61 11	81	D-25-15,16		3/21	R	
101559	Seedling	France (2)	D=44-38A		3/17	R	
101677	Ta Tao or Fei #15	China	E-5-22,23	3/26	3/28	R	
101680	11. 11 #18	9.2	E-5-26,27	3/25/26	3/27	R	
101685	11 11 #23	88	E-5-34,35	2	3/28	R	
101688	n n #26	83	E-10-7,8	3/26	3/26	R	
101689	n n n 27	11	E-5-40,41	3/25,24	3/28	R	
101836	Peregrine	Morocco	E-11-22	3/23	3/25	G	
104287	Soleil d'Octobre	11	E-8-5,6		3/20	R	
104315	North Caucasus #26(Nurs.ELD		0.100	E	
104488	Goschina Novembre	Italy	E-10,21,22	2 M M 3 0	3/20	R	
104492	Santa Caterina	Italy	E-2-21,22	3/17,18		R	
105839	Blackburn	Australia	E-9-30,31	0 /07 00	3/17	R	
105850	Roger Louis	99	E-11-38,39	3/21,20	3/25	R	
106232	Wright's Orange(nec		E-24-13,14		3/18	R	
111838	River's Orange(nect		E-24-35,36	- 10-	3/21	R	
111916	Camden Golden	11	E-18-17,18	3/23	3/20	R	,
113452	Rogani-gow	U.S.S.R.	E-13-2,3	9 (29 0)	3/20	R&C	İ
117488	Fisher	Canada,	E-18-19,20	3/23,24	3/25	R	,
117679	Clone #01370	U.S.S.R.	E-13-12,13		3/25	R&C	ż
119836	Khitistavsky	Turkestan	E-14-3,4	2/22	3/20	R	
122165	Seedling	India (2)	E-7-29	3/20	3/20	R	
125282	Sunbeam	U.S.A.	E-13-20	3/23	3/20	R	
125397	Grady (nect)	81	E-23-3,4		3/19	R	

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	n :) 07	~	- I.	-	First Le		gland
P.I.			- Rating -	Location	1952	1951 -	type (1)
125397		U.S.A.		D-44-41A	- /	3/15	R
126554	Marigold	11.		E-3-29,30	3/21,20	3/20	R
	Massasoit	1t		E-3-23,24	3/19,22	3/24	R
126562	Halehaven	11		E-3-5,6	3/20,24	3/17	G
126564	Valiant	tt		D-44-42A		3/16	R
126564	11	11		E-3-9	3/21	3/19	R
126566	Viceroy	33:		E-3-11,12	3/21,22	3/19	R
129609	Emmerson (nect)	Australi	ia	D-44-23,24	-1	3/13,1	
129612	Goldmine Late (nect)	116		E-25-15,16		3/20	R&G
129678	Stanwick (nect)	S. Afric	ea.	E-25-17,18		3/21.,22	
129803	Beale	Australi		E-18-33,34	3/24,23	3/25	G
129807	Healesville Cline	11		E-18-39,40	3/24,21	3/18	R
129812	Peak Cling	11		E-19-1,2	2/2492	3/18	E
129815	Thieles Cling	ıt .		E-19-3,4		3/20,18	
		11		E-25-19,20	2/22 27	3/21	R
129817	Fripp's Late (nect)		′ 0.1		3/23,21	3/21	
130726	Seedling	Mexico ((2)	J-13-129		3/7	R
130894	Alexandra Noblesse	England		D-44-27,28		3/17,2	
130907	Victoria (nect)	ttı		D-39-25,26		3/13	R
130937	Summercrest	U.S.A.		D-39-7,8		3/13	R
130965	Ariband	France		E-7-11,12	3/22	3/27	G
131031	Garden State (nect)	U.S.A.		E-25-25,26		3/18	R
131075		t) Englar	nd	E-25-31,32	3/23,24	3/26	R
131208		11		E-11-36,37	3/23	3/25	G
131431	Milton (nect)	11		E-10-9,10	3/22,24	3/24	G
131462	James Walker	11	•	E-9-2	3/22	3/25	R
131472	Dr. Aribaud	France		E-19-23, 24	3/23,22	3/27	G
131514	Belle Henri Pinaut	11		D-44-30		3/16	R
131514	ti ti ti	ii		E-ll-l	3/21	3/20	R
131518	Cuzin (nect)	ü		D-39-23,24		3/15	R
131781	Bardou Job	ŭ		E-19-27,28		3/25	R
131783	Biscoute	tt		D-44-37		3/13	R
131791	Grosse d'Italia	ü		D-39-28,29		3/19,20	0
131798	Rouge D'Aout	ú		E-12-5,6	3/23,21	3/17	R
131800	Wallas	ti.		E-19-33,34		3/18	R
131813	Aribaud	tt		D-45-7A		3/19	G
131813	11	ti		E-6-35	3/20	3/22	G
131814	Elegante (Guilloux 9	2) !!		E-7-38	3/24	3/28	G
131814	11 ft	lj .		E-6-38	3/19	3/25	G
131847	Lady Palmerston	u		E-9-32	3/23	3/20	R
132171	Sdlg of Aidinovsky	U.S.S.R.	(2)	J-14-33	3/21	3/23	R
132171	11 11	11	(2)	J-14-34	-,	3/17	R
132175	" of Geokchaisky	Relv II.	(2)	J-14-37	3/16	3/14	R
132551	Samling #30	Germany	(-)	E-9-25	3/20	3/20	R
132551	11 11	11		D-45-10A	-/	3/16	R
132552	Blutnektarine, nect)	11		D-39-20,22		3/19,18	
132752	Rote Nectarine(nect			D-44-44,45		3/18,2	
		Austral	ia	D-39-30		3/17	R
133501	Elberta Camden	Aus oral.	La	D-45-12A		3/15	R
133501		11		E-12-9,10	3/22,20	3/20	R
133502	Italian Cling	11		D-45-7	J/ L2920	3/18	R
133505	Late Queen	11		D-40-1,2		3/13	G
133508	Phillips Cling			D-40-192		21 -2	

-12-Rating 2 (contd)

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en. 277	- C 4		- 0.0	First Le		gland
P.I.	Received as Clone	- Source - Rating -		1952		type (1)
133545	Catherine Ann	Australia.	D-46-12A	- 400 0	3/18	G
133545	81 83	11	E-12-21	3/19	3/25	G
133546	Chapman	921	E-6-34	3/22	3/25	G
133550	Peak Cling	17	E-12-29,30		3/18	E G
133553	Pump's sdlg	99	E-12-35,36	3/23	3/25	G
133729	Crimson	f)	E-6-3,4	3/21,20	3/27	R
133741	Lady Palmerston	91	D-45-10,11	4 3	3/19,20	
133745	Smith 's	83	E-9-3,4	3/24,23	3/26	G
133849	Golden Honey Frees		E-13-18,19		3/25	R
133861	Lippiatt's Late	38	D-40-45,46		3/14	G
134150	Sdlg.of Bresquillo		E-4-9,10	3/20,21	3/19	R
1.35696	Sdlg(nect)	Afghanistan (2)	7-17-44	3/23	3/17	R
135991	Early Alfred	England	D-39-41,42		3/16,1	4 G
135991	\$1 B	ŶŤ	E-6-9		3/12	G
136144	Angevine	France	E-7-35	3/19	3/18	R
136154	Triompholicio	11	D-45-21A		3/21	G
136580	Belle Imperials	ff	D=45-23A		3/13	G
138966-	4 Seedling	South America(2)	E-7-30	3/24	3/25	R
138966-	91	11 11 13	D-45-25A		3/22	R
141088	88	Iran (2)	J-16-46	3/23	3/19	R
141090	# (peach?)	1.1	J-16-59	3/23	3/19	R
141091	" (nest)	## 89	J-16-60	3/23	3/19	R
141091	11 91	£\$ 81	J-16-62	3/24	3/19	R
141091	II.	18 11	J-16-63	3/22	3/19	R
141091	" (nest?)	Ba Gran	J-17-95	3/24	3/19	R
141091	" (nect)	£\$ 8.5	J-16-66	3/19	3/19	R
141091	81 81	91	J-16-69	3/22	3/17	R
141097	it	II fi	J-K-31	3/20	3/1.7	R
141097	A8	83. 81	J-K-36	3/20	3/18	R
141098	81	f1 81	J-K-6	3/20	3/19	R
141098	11	88 89	J-K-19	-,	3/16	R
141098	98.	88 88	J-K-18			R
141101	25.	88 88	J-J-20	3/20	3/20	R
141104	88	88 99	J-I-24	3/19	3/20	R
141109	11	11 11	J-1-2	a y	3/19	R
141110	11	\$P £2.	J-17-24	3/19	3/20	R
141115	" (nect)	88 68	J-H-5	3/21	3/14	R
141115	11 11	87 89	J=H=8	-,	3/17	R
141115	11 33	88 88	J-H-13	3/20	3/18	R
141115	90 99	tt it	J-H-36	3/21	3/17	R
141115	H. H	tr tt .	J-H-39	3/18	3/18	R
141115	81 11	11 11 ·	J-H-12		3/19	R
141115	11 11	81 81	J-H-23	3/19	3/19	R
141117	\$1	11 11	J-K-54	3/18	3/18	R
143.117	" (nect)	ñ, û	J-K-56	3/21	3/18	R
141117	11	11 11	J-K-47	0,	3/19	R
141118	и.	ff 11	J.J. 64		3/18	R
141202	Alba flore pleno(p	urple leaf)			7/	
	The state of the s	England	D-41-36		3/17	R
141202	81 11 11	11	D-40-29,30		3/21,2	2 R
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Rating 2 (contd)

		114 01116	2 (001100)			Leaf
					Leafing	gland
P.I.		- Source - Rating		1952	1951	type (1)
143742	Roberta	U.S.A.	D-40-18		3/13	R
143742	tt	tt .	D-45-33A		3/12	R
143910	Redhaven	11	E-5-3		3/17	R&G
143910	tt .	ff	E-11-28,29	3/21	3/20	R&G
143912	Flaming Gold (nect)	11	E-7-21,22	3/23	3/20	R
145998	Seedling	Iran (2)	P-22-19	3/20	3/21.	R
145998	31 :	ff ff	P-22-20	3/20	3/20	R
145998	Ħ	11 11	P-22-23	3/17	3/20	R
145998	11	11 11	P-22-21		3/18	R
146001	15	ii ii	P-22-60	3/17	3/20	R
146001	11	īt ti	P-22-61	3/18	3/22	R
146001	n	11 11	P-22-62	3/16	3/18	R
146001	" (nect)	<u>ii</u> 11	P-22-63	3/17	3/19	R
146004	ii ß	tt tt	P-23-58	3/17	3/20	R
146005	II .	11 11	P-23-14		3/20	R
146005	11	11 11	P-23-15	3/20	3/19	R
146005	11	11 11	P-23-17		3/20	R
146005	II .	11 11	P-23-19	3/19	3/23	R
146007	11	ii ii.	P-22-64	3/18	3/18	R
146007	11	11 11	P-22-65	3/17	3/1.8	R
146009	11	11 11	P-24-31		3/20	R
116011	ıt .	11 11	P-22-29		3/26	R
146015	" (nect)	11 11	P-21-64	3/15	3/21	R
146015	11 11	11 11	P-2166	3/14	3/20	R
1460.15	11 11	at ii ,	P-21-68		3/20	R
146020	13 81	f1 1t	P-23-5		3/22	R
146020	11 11	It II	P-23-6		3/21	R
146022	11 11	n ii	P-23-40	- 10-	3/24	R
146022	11 11	11 14	P-23-41	3/20	3/23	R
146022	ff	11 11	P-23-43		3/24	R
116055	f1 f1	11 11	P-23-44	- /	3/21	R
146022	11 11	11 11	P-23-45	3/20	3/23	R
146022	ff ff	11 11	P=23-47		3/21	R
146022	31 11	11 11	P-23-48	2 77 0	3/25	R
146022	11 21	11 11	P-23-49	3/18	3/20 3/23	R
146022	11	f1 11 f1 11	P-23-50	3/19		R
146022	11 11		P-23-42	3/20	3/22	R
146022	11	11 11	P-23-51		3/23	R
146024	" (nect)	11 11 14 Ú	P-24-7	3/18	3/20 3/23	R R
146027	" (nect.?)		P-20-47	2/10	2/22	
146027	11 11	11 11	P-20-48	3/19 3/17	3/24	R R
146027	11 11	11 11 11	P-20-49	3/19	3/24	R R
146027	11 11	11 11	P=20=45 P=20=46	3/19	3/24	R
146027	II II	11 11		3/19		R
146028	m (nect)	11 11	P-23-3	3/18	3/18 3/23	R R
146029	" (nect?)	11 11	P-20-56	3/16		R R
146029	· ·	11 11	P-20-57 P-20-59	3/19	3/21	R R
146029	" (nect)	ii ti	P-20-6C	2/17	3/21	R
146029	11		I-20-00		2/ 4.1	R

Rating 2 (contd)

						Leaf
				First Le		gland
P.I.		- Source - Rating -		1952		type (1)
146032	Seedling (nect)	Iran (2)	P-22-44		3/20	R
146032	r ii ii	§	P-22-51	- 1= 0	3/23	R
146032	f1 §1	11 11	P-22-54	3/18	3/22	R
146032	13 88	11 11	P-22-55		3/23	R
146034	17 29	16 18	P-21-57	- In -	3/21	R
146034	ti fi	\$1 £3	P-21-58	3/19	3/20	R
14603h	§1 11	f1. 11	P-21-61	3/18	3/22	R
146035	11 11	ii ii	P-24-30	3/20	3/21	R
146035	ii ii	H H	P-24-27		3/21	R
146035	11 11	11 11	P-24-29		3/16	R
148199	Henrietta	U. S. A.	D-45-26		3/17	G
148199	11	11	E-14-15	2/22 22	3/20	G
148262	Erly-Red-Fre	11 (0)	E-9-40,41	3/23,22		G
148620	Seedling	Iran (2)	P-24-43	200	3/20	
148620	\$}:	11 19:	P-24-47	3/1.9	3/16	R
148620	18	11 11	P-24-48	3/20	3/20	R
148620	57	11 11	P-24-49	2 /07	3/17	R
148620	(7000)	ff f1	P-24-51	3/21	3/17	R
148622	(peach?)	11 831	P-24-50		3/18	R
149397	Southland	U. S. A.	E-13-1		3/20	G
149397	11	11	E-11-36		3/12	G D
151626	Beltsville #2-2221	11	D-45-33,34		3/13,1	
151629	#10365	11	D-45-40		3/14	G D
151630	" #3705 "" "7075"	11	D-1.5-1.1,42		3/15,1	
151631	" #12156	!!	D-46-2,3		3/13,1	
151639	#7406	n	D-45-40A,43		3/15	R
156959	Redcrest	și II	D-43-11,11A		3/13	R
157221	Prairie Daybreak	11	D-43-12,12A		3/16,1	
158369	Wild Rose	11	D-43-14A,15		3/13	R
159419	Prairie Rose	11	D-43-15A		3/15	G
159983	Seedling (3) (nect)	m /o5	n tt h	3/20		D
7 50000	141115	Iran (2)	J-H-l	3/20	3/15	R R
159983			D-45-45,45A D-43-16		3/14	R
162554	Homeygem	U. S. A.			3/29,2	
162874	Beltsville 385	11	D-43-16A,17		2/6796	Z N
		Rating 3				
		Constructive commercians are address; comp				
C26677	Stanford	U.S.A.	E-13-28,29		3/20,1	2 G
c26896	Maxine	11	E-8-23	3/18	3/20	R
C2.6896	f f	31	E-13-30			R
C26896	11	11	E-13-36	3/24	3/25	R
C27183	Robin	ii.	D-44-3,4		3/18,1	
C27186	Curlew	ff .	D-44-9,15		3/1.6	R
C27190	Quetta (nect)	it.	D-44-46		3/1.8	R
30358	Clone #893	U.S.S.R.	D-10-21		3/15	R
30358	11. 21	11 1	D-46-7		3/17	R
30358	11 22:	531	E-7-23	3/22	3/12	R
34685	Quetta (nect)	U.S.A	D-44-17A,18	A	3/16,1	
34685	n ii	11	E-23-11	3/21	3/14	R
36127	Bolivian Freestone	Bolivia	Nurs.E2(B)			R

-15-Rating 3 (contd)

					Leaf	
				First Lea	afing glar	rd
P.I.		Source -Rating -		1952		(1)
38469	Feicheng seedling	China (2)	D-44-19A, 20A		3/18,19	R
38469	ti ti	11 11	D-16-7		3/19	R
1.8694	Seedling of Ngie	11 11	D-8-2		3/1	R&G
48694	11 11	11 IL	D-44-21A		3/4	R&G
55886	Yunnan	11 11	E-4-17	3/18	3/19	R
63851	Shalil	India (2)	D-44-22A, 23A		3/7,13	R
63852	Shalil Cling	11 11	D-16-15,16		3/7.8	R
78544	Terzarola col pizzo	Italy	E-10-1,2	3/23,22	3/25	E
88559	Wright's Midseason	New Zealand	E-18-3,4	-,	3/20	R
88559	11 11	11 11	D-26-12		3/12	R
89969	Seedling (2)	Island St. Helena	D-9-7		2/1.3	
95501	Seedling (3)	China (2)	E-18-7,8	3/21	3/25,20	R
95501	11 11	11 11	E-103-15		3/20	R
101559	1!	France (2)	D-25-28		3/21	R
101559	11	11 11	D-44-37A		3/20	R
102534	Topazie	Italy	E-9-6,7		3/20	G
103797	Seedling	India (2)	D-30-28		3/10	
104029	Noce Pesca Gialla (nec		E-24-29,30	3/22	3/21,20	R
104286	Senateur Cazenave	Moracco	Nurs.El(A)	-,		R
104315	North Caucasus #17(3)	U.S.S.R.(2)	Nurs.E4(D)			G
104487	Di Verona	Italy	E-10-19,20	3/21	3/20	R
104495	Topazio	It	E-18-13,14	3/19	3/20	R
109902	Bellegarde	England	E-2-29,30	3/20,19	3/19	G
111837	Masterpiece (nect)	Australia	E-24-17,18		3/17	R
111925	Newington (nect)	THE STATE OF THE S	E-5-42,43	3/18,21	3/30	R
116638	Seedling	India (2)	Nurs.E2(B)	3/25		R
119840	Turnip-Shape	U.S.S.R.	E-14-9,10	-, -	3/18	R
125015	Kalhaven	U.S.A.	E-18-21,22		3/20	R
125104	Ambergem	11	E-14-32,33	3/20	3/17,18	R
126553	Delicious	11	E-3-21,22	-,	3/12,19	R
126556	Oricle	11	E-3-15,16	3/22,19	3/24	R
126558	Rosebud	ū	E-3-27,28	,	3/17,19	R
126561	Veteran	11.	E-3-1,2		3/19,18	R
126565	Vedette	11	E-3-13,14	3/21,23	3/22	R
126578	Sieger	Germany	D=44-21,22		3/18,16	R
129677	Sea Fagle	South Africa	E-18-31,32	3/20,21	3/25	G
129813	Pump's Seedling	Australia	D-44-25, 26		3/19,20	G
130723	Seedling	Mexico (2)	J-13-115		3/8	R
130726	11	11 11	J-13-126		3/4	R
130726	11	11 11	J-13-130		3/8	R
130726	11	j1 11	J-13-132		3/6	R
130726	11	11 11	J-13-127		3/6	R
130726	11	11 11	J-13-128		3/7	R
130901	Sea Eagle	England	E-6-36,37	3/22,21	3/1.9	G
131030	Sunhigh	U. S. A.	E-19-18		3/19	R
131034	Spathe de Hallen	Poland	D-44-29		3/17	R
131177	Seedling	Mexico (2)	J-14-3		3/14	R
131783	Bixcoute	France	E-8-28	,	3/20	R
131785	Clemence Isaure	11	E-12-1,2	3/23,24	3/25	R
131797	Monstreuse Pelissier	11	D-46-11A		3/1.0	R

-16--Rating 3 (contd)

		Charles of the Control of the Contro			Le	af
				First Lea	afing gl	.and
P.I.	Received as Clone -	Source - Rating -	Location	1952	1951 ty	pe (1)
133548	Hawkesbury Champion	Australia	E-12-25,26	3/22	3/20	G
133556	Willow Leafed Elberta	ti	D-39-27		3/16	G
133556	11 if 11	53	D-45-13A		3/21	
133743	Riverside	11	E-12-37,38		3/15,18	R
133746	Wright's Early	11	E-12-39,40	3/20,21	3/25	G
133844	Seedling (3)	U.S.S.R.(2)	E-19-41,42	3/21,23	3/26	R
133844	II II	11 11	D-45-12,13	J, g J	3/21,18	R
133844	11 11	11 13	E-95-26		3/23	R
133847	Free Queen	New Zealand	E-13-16,17		3/20	E
133863	Rikaku Jap	11 11	D-45-14,15		3/16	R
133982	Herholdt's Late Cling	S.Africa	D-45-14A		3/15	R
133962	II II II	11	E-9-19		3/18	R
133984	Marina	11	E-9-35	3/21	3/20	R
133984	H	18	D-45-20	If lada	3/16	R
134400	Seedling (3)	China (2)	D-16-17	3/27	3/17	R&G
134400	il ii	0221112 (2)	E-20-3,4	3/23,22		R&G
134401	85 11	11 11	D-16-18	2/62966	3/21	R
134688	Raritan Rose	U.S.A.	E-7-36,37	3/19,21	2/78	R
134688	H H	0.00.10	E-20-23, 24	21 MJ 9 Gade	3/1.8	R
135696			J-17-32	3/23	3/23	R
	Seedling (nect)	Afghanistan (2)		3/21	3/19	
135696	er er	11 11	J-17-33	3/22	3/18	D
135696	19 11	12. 11	J=17-35	2/26	3/19	R
135696	11	86 17	J-17-40	3/24	2/27	R
135696	11 11	11 11	J-17-42	3/22	3/19	R
135696	91	81 11	J-17-47	3/24		R
135696 135866	88		J-17-54 J-19-95	3/23	3/20	R R
		India (2)	E-8-38,41	3/20 3/24	3/20,25	R R
135994	Amy, persica foliis pu	n n Trhomera Fugraror	E-6-32	3/25	3/25	r R
135994	Chilon			2/ 42	3/14	R
136346	OUTTOU	France	D-39-15		3/21	R R
136146		11	D-40-37		21 Cords	G
136153	Tardive d'Octobre		Nurs.E4(D) D-10-6		3/15	R
138969	Seedling (3)	U.S.S.R. (2)				G G
139155	Acl	New Zealand	D-40-14,15		3/14,15	
139195	Wiggins	Australia	D-39-18,19		3/16,17	R
139195	\$\$		D-45-31A	2/40	3/13	R
141086	Seedling	Iran (2)	J-18-39	3/19	3/17 3/19	R
141087	14.	\$	J-16-45 J-I-58	3/21 3/21	2/27	R R
141087	is	£1 80		3/20	3/19 3/19 3/19	
141087			J-I-59	3/20	2/17	R
141.090	" (peach?)	11 11	J-16-52	3/24	3/17	R
141090	11 11	f1 f1	J-16-47	3/22	3/17	R
141091	11	En ff	J-16-70	3/15	3/19	R
141091	" (nect)	11 11	J-17-97	3/22	3/19	R
141091	If II	f1 11	J-17-101	3/22	3/19	R
141091	f1	17 11.	J-17-102	3/23	3/19 3/19	R
141091	88 81	ti it	J-16-64	3/20	3/19	R
- 141091	11 11	11 11	J-16-68	3/16	3/17	R
141.092	11	11	J-16-76	3/22	2/32	R
141097	11	88 11	J-K-35	3/18	3/19	R

-17Rating 3 (contd)

								Leaf
						First	Leafing	gland
P.I.	Rece	ived as Clone	- Source -	Rating .	- Location	1952	1951	type (1)
141098	Seed	ling	Iran (2)		J-K-11	3/20	3/19	R
141098	11		f1 II		J-K-1	3/18		R
141098	11		11 11		J-K-2	3/19	3/20	R
141099	12		11 11		J-I-54	3/20	3/20	R
141100	11		\$1 11		J-I-40	3/21	3/20	R
141100	11		11 11		J-I-38	3/19	3/18	R
141100	11		11 11		J-I-39	3/20	3/20	R
141101	11		ii ii		J-J-6	3/19	3/20	R
141101	Ħ		n n		J-J-13	3/17	3/19	R
141101	111		11 11		J-J-14	3/19	3/1.9	R
141101	11		11 11		J-J-19	3/18	3/19	R
141101	11		11. 11		J-J-5	3/18	3/19	R
141101	13		11 11		J-J-7	3/18	3/13	R
111101	11		11 11		J-J-11	3/18	3/19	R
141104	11.		11 11		J-1-15	2.7	3/20	R
141104	11		11 11		J- L -26	3/18	3/18	R
141104	11		11 11		J-L-32	3/20	3/19	R
141105	si	(peach?)	11 11		J-17-11	3/21	3/19	R
141106	11	(1000011)	11 11		J-17-12	3/20	3/24	R
141109	11		11 11		J-L-10	2/20	3/17	R
141111	11		tt It		J-17-31	3/23	3/19	R
141111	11		11 11.		J-18-64	3/22	3/19	R
141115	٤١	(nect)	1). 11		J-H-26	2/ 44	3/15	R
141115	11	(nec o)	n u		J-H-33	3/20	3/18	R
141115		11.	11 11		J-H-30	3/20	3/10	R
141117	11	11	11: 11			3/20		
141117	11	11	11 11		J-K-44	3/20	3/18 3/17	R
141117	11	11	11 11		J-K-45	3/20		R
141117	11:	II .	11 11		J-K-50	3/20	3/18	R
141117	11	11	11 11		J-K-55	3/21	3/17	R
141117	š1	11	n 11		J-K-49	2 /22	3/17	R
142235		reeze			J-K-51	3/21	3/17	R
			Canada		E-7-3,4		3/20	R
143345	Seed!		Iran (2)		J-I-95		3/16	R
143741	Hile		U.S.A.		D-39-13,14		3/14,1	
	Hala	ve	11		E-9-16,17		3/20	G
143907		- a (1)	α		E-10-26		3/12	G
143913		red (nect)	ij		D-46-13A		3/18	R.
144643	Zarn		11		E-7-14		3/19	R
144643		77 2	11		D-46-14A		3/10	R
144655		Elberta	ii ii		D-45-27,28		3/13,1	
145064		y Halehaven		•	E-9-5		3/18	G
145064	11	11	ii		E-8-1	- 19/	3/20	G
145996	Seed.	Ling	Iran (2)		P-22-5	3/16	3/19	R
145996	11		11 11		P-22-4	3/19	3/20	R
146000	11		11 11		P-22-18	3/20	3/17	R
146001	11		11 11		P-22-57	3/19	3/21	R
146001	11		11 11		P-22-58	3/16	3/22	R
146001	11		11 11		P-22-59	3/17	3/19	R
146002	11		11 11		P-23-9	3/1.9	3/13	R
146002	11		11 11		R-23-11	3/19	3/14	R

						Leaf
				First I		gland
P.I.	Received as Clone	- Source - Rating		1952	1951	type (1)
146002	Seedling	Iran (2)	P-23-13	3/20	3/3.8	R
146002	11	11 ¥t:	P-23-10	3/18	3/12	R
146002	11	n û	P-23-12	3/16	3/111.	R
146004	51	11 11	P-23-53	3/18	3/17	R'
146004	11	51 11	P-23-54	3/17	3/1.8	R
146004	ft.	11 11	P-23-55	3/18	3/19	R
146004	ff	ij ii	P-23-59	3/18	3/21	R
146004	11	11 11	P-23-60	3/17	3/20	R
146004	11	ű ü	P-23-61	3/15	3/19	R
146004	11	ft 11	P-23-63	3/17	3/21	R
146004	Ħ	11 11	P-23-65	3/17	3/16	R
146004	ff	n n	P-23-67	3/35	3/16	R
146004	11	11 11	P-23-52		3/23	R
146004	11	\$1 17	P-23-55	3/1.7	3/20	R
146004	11	11 11	P-23-57	3/1.6	3/19	R
146004	11 1	f1 f1	P-23-62	3/16	3/20	R
146004	91	95 11	P-23-64	3/1.8	3/23	R
146005	11	u u	P-23-18		3/21	R
146010	11.	11 11	P-22-9	3/18	3/21	R
146011	11	11 11	P-22-26	3/17	3/25	R
146011	11	39 11	P-22-27	3/17 3/17	3/1.8	R
146011	. 11	11 11	P-22-28	3/16	3/18	R
146013	11	18 91	P-22-10	3/120	3/18	R
146013	1.1	11 11	P-22-11	3/18	3/17	R
146013	11	11 11	P-22-16	3/19	3/20	R
146013	11	11 11	P-22-17	3/19	3/20	R
146013	n.	11 11	P-22-12	3/20	3/22	R
146013	\$1"	17 11	P-22-15	3/20	3/18	R
14601.5	¥1	91 11	P-23-35	3/19	3/18	R
146014	Ŷ.	92 11	P-23-36	3/18	3/17	R
146014	11	11 11	P-23-37	3/17	3/17	R
146014	11	tt tt	P-23-25	3/17	3/20	R
146014	11.	11 11	P-23-26	3/16	3/18	R
146014	88	11 11	P=23-34	3/19	3/20	R
146014	n (Nect)	11 11	P-21-63	3/17	3/21	R
146015	11 11 1 1 1 1 1 1 1 1	11 11	P=21-65	3/16	3/21	R
	11 11		P-21-67	3/16	3/20	R
146015	11 11	n n	P-21-69	3/19	3/20	R
146019	19 91	11 II	P-21-54	3/19	3/19	R
146019	11 11	11 11 ,	P-21-55	3/20	3/21	R
	11 11	11 11	P-21-56	3/19	3/21	R
146019	11 11	11 11	P-21-52	3/17	3/22	R
146019		11 11	P=21-53	3/17	3/20	R
146019	11 12		P=23=4	3/20	3/20	R R
146020		•	P-21-9	3/19	3/21	R R
146021	" (Nect)	11 11 11 11	P-21-10	3/20	3/21	R
146021	*	* '		2/20		
146021	11 11		P-21-11	3/20	3/21	R
146021	11 11	f1 11	P-21-14	3/18	3/21	R
146021	88 \$1	§1 11	P-21-17	3/20	3/21	R
1116057	" (nect?)	11 11	P-24-8	2/00	3/22	R
146025	" (nect)	11 11	P-22-30	3/20	3/21	R

-19-Rating 3 (contd)

							Leaf
					First Le		gland
P.I.	Received as Cl	one - Sourc	e - Rating -	Location	1952	1951	type (1)
146025	Seedling (pea			P-22-32	3/19	3/22	R R
146027	" (nec		11	P-20-54	3/17	3/24	R
146027	" (1160	11	11	P-20-50	3/15	3/24	R
146027	11. 11	11	11	P-20-51	3/14	3/24	R
146027	11 11	11	11	P=20=52	3/15	3/25	
	11 11	11	11	P=20=53	3/14		R
146027	11 11	11	11	P=20=55		3/25	R
146027			11		3/16	3/25	R
146028	(2200		11	P-23-2	3/19	3/22	R
146029	(1100	00)		P-20-58	3/19	3/27	R
146030	" (nec		11	P-24-17	3/19	3/21	R
146030	11 11	ii.	11	P-24-26	3/16	3/17	R
146031	11 11	ıi .	11	P-24-9	2 / 20	3/23	R
146031	11 11	11	11	P-24-14	3/20	3/18	R
146031	11 11	11	11	P-24-15	3/19	3/21	R
146031	11 11	11	11	P-24-16	3/20	3/22	R
146032	tt II	11	11	P-22-43		3/23	R
146032	11 11	11	H	P-22-45		3/20	R
146032	11 11	ft .	if	P-22-47		3/21	R
146032	11 11	11	11	P=22=48	- (m -	3/21	R
146032	11 11	11	f1	P-22-49	3/19	3/24	R
146032	" (nec		11	P-22-50	4	3/20	R
146032	" (nec	•	11	P-22-52	3/19	3/20	R
146032	ti ti	11	11	P-22-53	3/3.7	3/21	R
146032	11 11	11	11	P-22-56	3/19	3/21	R
146034	11 11	11	11	P-21-59		3/21	R
746034	11 11	11	11	P-21-60	4	3/22	R
148202	Williams	U.S.	A.	E-9-38,39	3/22	3/16,2	5 G
148264	Gage Elberta	11		D-45-35A, 3	6A	3/14,1	3 G
148265	Gemmer's Late			D-45-30		3/18	R
148265	11 11	tt tt		E-14-19		3/15	R
148267	Lizzie	ii.		E-13-42,43		3/20,1	
148395	Firegl.ow	11		E-14-1,2	0	3/20	R
148618	Seedling		(2)	P-24-67	3/19	3/21	R
148619	ii ii	11	11	P-24-36	3/14	3/16	R
148619	††	1f	11	P-24-37		3/18	R
148620	11	tt .	11	P-24-41		3/1.6	R
148620	11	fI	11	P-24-42		3/21	R
148620	ii	11	11	P-24-44	,	3/15	R
148620	fl	11	11	P-24-45	3/20	3/19	R
148623	n (nect)	11	11	P-24-57	3/1.8	3/19	'R
150647	Garden State		A.	E-15-1,2		3/20	R
150774	Redskin	11		E-15-3,4		3/18	R
151.628	Beltsville #32			D-45-35,36		3/11	R
151.635	" #73			D-45-39,39A		3/14,1	
151648	Golden Heath	11		D-46-12,13		3/12,1	
151651	Sullivan's Elb			D-46-26,27		3/10,1	.3 R
151652	Sunday	11		D-46-20,29		3/14,1	
1.51.654	Vivid Gold	11		D-46-30,31		3/14,1	
151718	Dixired	11		D-46-32		3/15	G
152148	Beltsville #86	39 "		D-45-41A		3/18	R

Rating 3 (contd)

				77.0	Leaf	
			*	First Le		
P.I.		· Source - Rating -		1952	1951 type (1))_
152149	F.V.9-93	U.S.A.	D-46-33,34		3/16,18 R	
153810	N.J.#133	11	D-47-2		3/15 R	
153810	ff fi	£	D-45-42A		3/20 R	
153811	Early East	11	D-46-37,38		3/15 R	
153813	N.J. #137	11)	D-46-43,44	- 1	3/15 R	
161320	Seedling (3) (nect)	Iran (2)	J-H-24	3/21	3/1.6 R	
161320	25 55	11 11	D-46-2A, 3A		3/13 R	
161321	11 28 86	31 [1	J-H-28		3/12 R	
161321	\$3 §\$ § \$	11 11	D-46-4A,5A		3/13 R	
		Rating	14.			
		precisionementum vilastitus.	æ			
C27152	Belle of Georgia	U.S.A.	D-40-5,6		3/14 R	
C27153	Eclipse	ff	D-40-19,20		3/15 R	
027342	Elberta seedling	11	E-36-29		3/22 R	
24807	Hansen Free	Turkestan (2)	E-6,7-43		3/19,20 R	
26503	Seedling	India (2)	D-11-11A		3/16 R	
4313?	Up-to-date	New Zealand	E-4-7,8	3/16	3/17 R	
43289	Eagle Beak- Ying Taui		E-11-1,5	<i></i> /	3/8 R&G	
43289	11 11 11 11	9 t 1t	D-17-29		3/04	
55776	Yunnem	China (2)	D-111-18		3/5 R	
55776	38	88 88	D-44-19		3/5 R 3/? R	
55776	11	83. FF	D-44-20		3/8 R	
55885	39	8.0 86	E-4-15,16		3/17,19 R	
55888	11		E-4-19,20		3/14,17 R	
62602	Pi T'ao	82.	E-2-9,10	3/23	3/26 R	
71138	Beedling	11. (2)	D-28-29	الريك الا	3/17 R	
72094	Hauch Tac	98	E-2-12	3/19	3/19 R	
80128	Agostina	Sicily	E-4-37,38	28 000	3/15 R	
80128	State Control of the	N Contraction of the contraction	E-15-11,12		3/18,12 R	
86296	Seedling	Persia (2)	E-98-12		3/22 R&G	
86296	N Commence	102 5200 (-)	NursE2(B)		R	
88557	Wright's Bountiful	New Zealand	E-8-29,30	3/1.9	3/20 G	
95501	Seedling (3)	China (2)	E-18-5,6	3/20	3/15 R&G	
102705	II (Lact)	U.S.S.R. (2)	E-2-17,18	3/20,18	3/17 R	
102706	· ·	11 II	E-2-19	3/17	3/19 R	
102706	Ferganeusis	91 86	E-2-20	3/18	3/17 R	
104485	Celeste Imperial	Italy	E-10-15,16	3/20,19	3/25 R	
105058	Seedling F2-126	U. S. S. R. (2)	NursE4(D)	ريدون ٢٠٠٨	R&G	
105061	" F3/12	0. 0. 0. 10(~)	NursE2(B)1		R	
105061	" F3-14	11. 11	NursE2(B)		R	
105062	" F3-32	88 83	NursE2(B)		R&G	
105062	# F3-35	99 99	NursE2(B)		R&G	
105851	Shanghai Slip	Australia	E-2-27, 28		3/19,17 R	
106062	Killiekrankie	S.Africa	E-18-15		2/23 R&G	
106948	Seedling F3/115 Mao	China (2)	NursE2(B)		R	
112033	Saharanpur #2	India	E-8-9,10		3/12 R	
113454	Ferganensis #59	U.S.S.R.	E-13-6,7		3/10,20 R	
113455	#057779	H • T • C • C • C	E-2-41,42	3/23,15	3/19,12 R	
113456	#808	** **	E-13-8	رعدورے ار	3/20 R	
エエラインの	#000	,,	Ti-Te-Just		2/ 60	

-21-Rating 4 (contd)

		2002-6 4 (000)				Tass
				D3		Leaf
		1 0		First L	_	gland
P.I.	Received as Clone	- Source - Rating .		1952		type (1)
119839	Shirin Donak #1281T	U.S.S.R.	E-14-7,8	3/20,18	3/26,15	R
119844	Clone #0932 (nect)	ti .	E-25-3,4	3/20	3/21,25	R&G
125283	Triogem	U. S. A.	E-13-22,23		3/19	R
126551	Buttercup	Ħ	E-3-19,20	3/24	3/19	R
126557	Radiance	11	E-3-17,18		3/19	R
126559	Golden Jubilee	11	E-13-24,25		3/20	R
129607	Peak Cling	Australia	E-18-27		3/10	R
129806	Gold Dust	n	E-18-37,38	3/22,23	3/20,3.2	
129808	Kia Ora	11	E-18-41,42	-/ -	3/18,14	
129814	Sims Cling	11	E-11-12,13		3/1.2	R
130723	Seedling	Mexico (2)	J-13-114		3/9	R
130723	11	11 11	J-13-120		3/8	R
130724	11 .	11 11	J-1.3-121		3/8	R
130724	11	11 11	J=13=122		3/3	R
130900	Prince of Wales	England	E-10-17,18	3/20 70	3/15	R
130934		9	E-11-16,17	2/20017	3/15	R
	Afterglow	U.S.A.				
130935	Golden East	11	E-11-18,19	2/30	3/20,15	R
130935			E-13-26,27		3/18,20	
130936	Golden Globe	ti	E-19-11	3/23	3/29	R
131029	Newday	11	E-19-15,16		3/12	R.
131548	Double Montagne	Belgium	D-44-33, 34		3/12	R
131796	Madeline Rouge	France	E-4-3	3/20	3/12	R
131801	Jaune Magnifique (nec		E-6-41,42	3/21,20	3/17	R
131844	Belle Henri Pinaut	ii.	E-8-7	3/19	3/17	G
132032	Bailey x Davidiana	U. S. A.	E-6-21,22		2/23	G
133500	Eclipse	Australia	D=40-35,36		3/13	R
133627	Seedling (3)	U.S.S.R.(2)	E-19-39,40		3/17,12	R
133627	11 11	11 11	D-10-8		3/12	R
133730	Mellor Park Crimson	Australia	D-45-8,9		2/12	R
133865	Tanaka Wase Jap.	New Zealand	E-20-1.1		3/18	R
133870	Wright's Bountiful	21 11	E-20-17,18		3/1.8	G
135694	Seedling	Afghanistan (2)		3/18	3/14	R
135866	11	India (2)	J-19-97	2,	3/16	R
135866	12	11 11	J-19-109		3/20	G
135991	Early Alfred	Engl.and	E-9-28		3/12	G
137910	Seedling	Iran (2)	J-15-133	3/19	3/15	R
137910	11 Deertrie	11 11	J-15-134	3/21	3/19	R
137912	11	11 11	J-16-1	3/18	3/15	R
137913	11	11 11	J-16-23	3/17	3/1.7	R
	"	11 11	J-16-39	3/18	3/15	R
137914				3/10	21 -2	
137914	11	11 11	J-16-40	3/19	2/10 50	R
1.38966-		S. America (2)	E-6-29,30		3/19,10	R
138966-		ff 11 11	D-45-24A		3/12	R
138966-		ff f1 11	E-9-34		3/17	R
138966-		ti ti ti	D-45-27A		3/12	R
138966-		ii ii ii	E-7-33		3/10	R
138966-		11 11 11	E-6-23, 24		3/12	R
138966-		ti ti ii	D-45-24, 25		3/9,10	R
138966-	15 "	11 11	D-45-30A		3/14	R

-22-Rating 4 (contd)

								Leaf
	_			- I.			Leafing	gland
P.I.		ived as Clone		e - Rating	- Locatio	on 1952	1951	type (1)
139187	Idea			ealand	D-40-16		3/13,	
141086		ling		(2)	J-18-40		3/18	R
141086	11	(peach?)	51	11	J-18-36		3/14	R
141086	11		11	11	J-18-41		3/17	R
141086	12		88	11	J-18-42		3/16	R
141086	\$9	(peach?)	Ħ	51	J-18-43		3/17	R
141086	11	17	11	11	J-16-41		3/17	R
141090	tt.	si.	ú	ti.	J-16-48	3/19	3/16	R
141090	11	TI	Ħ	11	J-16-51		3/17	R
141090	15	fi	251	11	J-16-57		3/17	R
141090	11	11	11	1t	J-16-49	3/18	3/17	R
141091	11	(nect)	\$1	11	J-17-90	3/19	3/16	R
141091	11	11	11	ff.	J-17-93		3/16	R
141091	11	61	11.	11	J-17-10		3/17	R
141091	11	11	11	11	J-17-92		3/17	R
141091	11	tt	11	tt	J-17-10		3/19	R
141092	11		11	tt	J-18-13		3/17	R
141092	Ħ		tt	tt .	J-18-13		3/17	R
141092	11		11	11	J-16-75		3/16	R
	11.	(manula 0)	11	11	J-16-72		3/14	
141092	ff.	(peach?)	11:	11			3/14	R
141092			11	ı. II	J-16-73	3/23	3/1/1	R
141092	11				J-16-77		3/1/4	R
141092	II		11	11	J-16-79		3/1/	R
141094	11		11	11	J-16-83		3/15	R
141094	tt	(peach?)	11	11	J-16-86		3/16	R
141094	ıı		f1	tt	J-16-89		3/16	R
141096	13	(peach?)	п	11	J-16-91		3/16	R
141096	11	n	11	ft	J-16-95		3/15	R
141096	88	ĵ1	žī.	11	J-16-96		3/16	R
141096	II.		11	11	J-18-57	3/20	3/17	R
141096	H		ñ	tt .	J-18-63	3/16	3/20	R
141096	fi		11.	11	J-18-56		3/17	R
141096	ń		Ħ	11	J-18-58		3/18	R
141097	11	(peach?)	Ħ	\$1	J-16-97	7 3/17	3/17	R
141097	11	gt .	11	11	J-16-10		3/16	R
1111097	11	98	11	11	J-16-10	3/17	3/16	R
141097	88,	33	ų	11.	J-K-40	3/19	3/16	
141097	F#:	11.	33:	II.	J-16-10	02 3/19	3/17	R
141098	11		ti.	tt	J-16-10	04 3/18	3/18	R
141098	ń	(peach?)	ņ	ij	J-16-11		3/19	R
141099	11.	(Foasia,	n.	ii	J-I-55	3/18	3/19	R
141100	11:	(peach?)	tt	11	J-16-12	3/18 23 3/20	3/18	R
141100	11	11	1t	ff	J-16-12	24 3/21	3/17	R
1/11/00	ü		11	##	J-I-36	-4)/	3/16	R
141100	tir ::		11		J-16-12	20 3/21	3/17	R
141100	11	(peach?)	H X	"	J-16-12		3/19	R R
141101	11	(peach?)	11	11	J-16-13		2/17	R R
141101	11	H	11	11			3/14 3/16	R R
141101	11	\$1°	11	11	J-16-12	2/19	3/10	п
141101	11	ρl	11	tt	J-16-13	3/21	3/19	R
		(1-0)			J-16-15	3/22	3/19	R
1/110/	11	(peach?)	11	11	J-17-1	3/15	3/18	R
141104	11		21	11	J-17-2	3/16	3/19	R

-23-Rating 4 (contd)

		114 01116 4	(001200)		Leaf
				Trimet Teef	
				First Leaf	
P.I.	Reseived as clone	- Source - Rating .			.951 type (1)
141105	Seedling	Iran (2)	J-18-139	3/19 3	3/16 R
14110?	11	11 11	J-17-14	3/19 3	3/19 R
141107	58 5	n u	J-17-153	3/21 3	3/18 R
141107	19	11 11	J-17-154		3/17 R
141108	" (peach?)	11 11	J-17-15	3/15 3	3/18 R
141708	ii (Deagii;)	11 11	J-18-124		
141103	71	ii II	J-17-16		3/16 R
141109	11	11 11	J=17-18	3/16 3	3/16 R
1411.09	11	11 51	J-17-20		3/15 R
711777	H	11 11	J-18-64	3/22 3	3/19 R
717995	" (peach?)	tt tt	J-18-69		3/18 R
143828	Late Rose	U. S. A.	E-8-36,37		3/20 R
143905	Fertile Hale	11	E-8-11,12		3/17,20 R
		11)/1920 II
143909	Redelberta		E-10-11,12	2	3/18 R
145076	Michigold	11	E-9-10,18	(-)	3/12 R
145996	Seedling	Iran (2)	P-22-1	3/18 3	8/14 R
145,996	II .	ti ti	P-22-2	3/17 3	3/14 R
145997	33	и и	P-21-46	3/14 3	3/14 R
146004	11	11 11	P-23-66		8/16 R
146005	11	31 11	P-23-16		3/1.6 R
	B	11 11			
146005			P-23-20		3/14 R
146010	\$1		P-22-7		3/13 R
146016	98	it ti	P-22-8		3/13 R
146037	11	11 11	P-22-25	3/18 3	3/1.8 R
146013	fl	ti ti	P-22-11	3/19 3	3/15 R
146014	tt	31 11	P-23-22		3/15 R
146014	11	11 11	P-23-27		3/14 R
74607	11	tt ti	P-23-28		3/18 R
	11	ii II			3/11 R
146014			P-23-30		
146014	11	11 11	P-23-31		3/1.8 R
146014	11	ft tt	P-23-32		3/18 R
146014	11	31 11	P-23-21	3/16 3	3/14 R
146014	H	n n	P-23-23	3/15 3	3/11 R
146014	1!	tt 11	P-23-29		3/14 R
146016	" (nect)	11 11	P-20-61		3/15 R
146016	11 11	11 11	P-20-62	3/17	3/15 R
	11 11	n n	P-20-63		3/15 R
146016			P-20-03	3/1/1	7/45 R
146016	11 11	11 11	P-20-61	3/19	3/15 R 3/14 R&G
146016	\$\$ \$1	žt 11	P-20-66	3/17 3	3/14 R&G
146016	11 11	11 11	P-21-2	3/17 3	3/15 R
146016	it ti	11 11	P-21-3	3/19	3/15 R
14607.6	11 11	ti ti	P-21-4	,	3/15 R
146016	11 11	11 11	P-20-67	3/16	3/15 R 3/14 R
146017	11 11	11 11	P-2149)	8/16 R
				2/17)/10 R
146017	11 11	11 11	P-21-50	3/17	R R
146078	11 11	11 11	P-211-2		3/15 R
146018	11 11	11 11	P-24-3		3/15 R
14,6018	н н	11 11	P-24-4	3/16	3/15
146018	tt tt	11 11	P-24-1	3/16	3/11 R&G
2400.2,73				-/	,

Rating	4	(ec	ntd)

		MAY TO AN AD THE STATE OF THE S	eritherite Austria (St. et al.) provintionis (CC) (CS), percialista		L	eaf
				First Le		land
P.I.		- Source - Rating ·		1952		ype (1)
179018	Seedling	Iran (2)	P-24-6	3/17	3/14	
146019	?1	11 11	P-21-51	3/18	3/15	R
146021	11	11 11	P-21-15	3/19	3/14	R
140921	" (nect)	\$\$ \$\$	P-21-5	3/18	3/17	R
146021	88 88	£1 11	P-21-8	3/19	3/14	R
146030	88 88	11 11	P-24-19	3/18	3/16	R
146030	fi	й н	P-24-24	3/17	3/13	R
146030	13	17 12	P-24-18	3/19	3/15	R
146031	11.	11 13	P-24-11	3/20	3/14	R
146034	11	81 81	P-24-13	3/19	3/14	R
146031	§1	21 11	P-24-10	3/18	3/11	R
146133	81. (2)	India (2)	D-45-34A	-,	3/15	R
146701	Hardse	U. S. A.	D-46-21		3/16	R
146701	11	11.	E-11-34		3/20	R
148263	Fireglow	11	E-9-42,43		3/1.6	R
148266	Hope Farm	11	E-10-37,38	3/17	3/20	R
148623	Seedling (nect)	Iran (2)	P-24-52	3/20	3/15	R
148623	11 11	11 11	P-24-53	3/17	3/15	R
148623	11	17 11	P-24-54	3/16	3/14	R
148623	\$3	\$1 83	P-24-55	3/17	3/15	R
148623	ii ii	11 11	P-24-56	3/16	3/15	R
148623	85:	11 11	P-24-58	3/18	3/15	
148623	11 11	11 11	P-24-59	3/19		R R
148624	11 11	11 11		2/19	3/16	
	11 11	11 12	P-24-66	3/19	3/15	R
148624			P-24-62	3/16	3/15	R
148624	ff f1		P-24-64	3/16 3/17	3/14	R
148624	II II III III II II II II II II II II I	11 11	P-24-65	3/17	3/14	R
151637	Beltsville #7426	U. S. A.	D-46-6		3/13	R
151638	#2832	11	D-46-10,11		3/8	R
151.650	Sandhill #1	li	D-46-14,15		3/9,10	R
153812	Jerseyland	II.	D-47-3		3/15	R
			,			
		Rating				
026646	Babcock	U.S.A.	E-8-26		3/12	G
027059		£1.	E-15-7,8		3/12	R
	Seadling	India (2)	D-144-8A		3/15	R
	Bolivian Cling			3/19	3/12,15	
43124			E-3-39,40	27 - 2	3/10	R
43127	Ideal	11 11	E-3-41,42,4	3 3/21	3/17	R&G
57686		Chile	E=5=37	J J/	3/12	R
61302			E-2-7,8	3/20	3/10	R
63850		India (2)	E-4-21,22	5/ 20	3/15	R
65518		Manchuria	NursEl(A)		ر سه اد	R
65821	Shan Thai tao	China (2)	E-7-31,32		2/23	R
65821	II II II	II II	D-30-35			
					2/13	R Pe.C
82648	Seedling	U.S.S.R.(2)	E-96-1		3/12	R&G
82648	10	1.1	E-96-3		3/12	R&G

		ita office >	(001100)			Leaf
			,	First Le	afino	gland
P.I.	Received as Clone -	Source - Rating	- Location	1952	1951	type (1)
82648	Seedling	U. S. S. R (2)	E-96-9		3/12	R&G
92763	fi fi	Morocco	E-7-13		3/12	R
92763	92:	1101.0000	E-10-3,4		3/8	R
95501	: 1	China (2)	E-18-9,10		3/15	R
95501	n	11 11	E-103-16		3/19	R
101725	Mac (F-199)	11: 11	NursE3(C)		رهاد ال	R&G
104489	Gialla tardiva di Mil	ano Italy	E-10-23,24		3/12	R
105061	Seedling (F3/24)	U.S.S.R. (2)	NursE2(B)		If wells	R
105062	n (F3/27)	11 11	11			R&G
1.06062	Killiekrankie	S. Africa	E-18-16		2/10	R&G
107838	Mao	China (2)	NursE2(B)		_,	R
112032	Saharanpur #1	India	E-9-8,9		3/8	R
112035	Shanghai. freestone	11	E-12-41,42		2/12,	
113457	Red nectarine	U.S.S.R.	E-25-2		3/12	R
11.9841	Ferganensis #849	11.	E-14-11,12	3/19,20	3/12	R&G
11.9843	1 018 8 019 119	YS	F-14-13, 14	3/18,21	3/11,	
11.9845	Amy. persica platycar	roa. II.	E-14-18	3/21	3/20	R
123969	Lialak 769T (nect)	51	E-14-21,22	3/22,21	3/15,	
125016	Ranniaya	f1	E-14-23, 24	2,,	3/12	R
125017	Sary Oilor (nect)	13	E-25-5,6		3/12	R&G
1.250:19	Unknown peach	11	E-14-28		3/12	R
125025	China Flat	India	E-18-23, 24	2/18	2/9	R
125103	Primrose	U.S.A.	E-14-29,30,		3/17	R
126567	Wilma	11	E-3-7,8		3/12	R
129603	Guame	Australia	E-18-25,26		3/12	R
129674	Angel	S. Africa	E-18-29,30	2/22,21	3/12	R&G
129804	Black Prince	Australia	E-18-35,36	,,	3/15	R
130724	Seedling	Mexico (2)	J-13-123		3/9	R
130725	11	11 11	J-13-125		3/15	R
130729	11	tt tt ·	J-13-134	3/20	3/15	R.
130729	38	11 11	J-13-149	3/16	3/14	R
130729	12	11 11	J-13-140	-/	3/13	R
130729	TI CONTRACTOR OF THE CONTRACTO	11 11	J-13-147		3/11	R
130729	11	H H	J-13-151	3/17	3/9	R
1.30729	11	11 11	J-13-154		3/11	R
133507	Meteor	Australia	E-12-15,16	3/20	3/14	R
133509	Pioneer	11.	E-12-19,20		3/15,	12 R
133547	Elberta Cling	11	E-12-23,24		3/18	R
133868	Taylor's Red	New Zealand	E-20-13,14		3/12,	18 R
133869	White Elberta	11 11	E-20-15,16		3/12	R
133869	77 11	11 11	E-8-27	3/22	3/12	R
1.34687	Red Rose	U.S.A.	E-14-25, 26		3/16,	12 R
13468?	11 11	11	E-20-21,22		3/12	R
134689	Pacemaker	11	E-20-25,26		3/15	R
134690	White Hale	TI .	E-20-27, 28		3/15	R
135694	Seedling	Afghanistan(2)	J-15-69	3/20	3/14	R
135694	88	11 11	J-15-71	3/17	3/15	R
135694	13	33 11	J-15-73	3/18	3/16	R
135694	11	11 11	J-15-77	3/19	3/15	R

Rating 5 (contd)

		raumg ;	(conta)			Tank
				Trimet T	61	Leaf
			••• • • •	First I		gland
P.I.	Received as Clone	- Source - Rating -		1952	1951	type(1)
135866	Seedling	India (2)	J-19-91	3/20	3/1/4	R,
135866	11	11 11	J-19-92	- 4	3/14	R
135866	ft	11 11	J-19-96	3/20	3/14	R
135866	81	11. 11.	J-19-106		3/14	R
135866	11	11 11	J-19-123	3/18	3/14	R
1.35866	11	пп	J-19-129		3/14	R
135866	11	31 11	J-19-130		3/14	R
135866	11	tr 11	J-19-99		3/16	R
135866	11.	m tr	J-19-102		3/16	R
135866	19-	п н	J-19-103		3/17	R
135866	91	n H	J-19-110		3/16	R
135866	11	ft 11	J-19-113	3/14	3/16	R
135866	11	11 11	J-19-118		3/14	R
135866	II .	11 11	J-19-119		3/14	R
135866	11	11 11	J-19-120		3/15	R
135866	RS	11 11	J-19-124		3/14	R
135866	11	11 11	J-19-125		3/15	R
135866	- 11	11. 11	J-19-126		3/15	R
135867	11	11 11	J-15-81		3/14	R
135867	11	18 11	J-15-86		3/12	R
135867	17.	11 11	J-15-88		3/15	R
			J-15-118		3/15	R
137908	" (Peach?)	Iran (2)	J-15-115		2/45	
137908		11 11			3/16	R
137908	u ii	· ·	J-15-116		3/14	R
137908	9f: 11		J-15-114		3/15	R
137908	11 11	11 11	J-15-113		3/14	R
137908	ff 11	11 11	J-15-111		3/16	R
137908	a ii	11. 11	J-15-107	- /	3/16	R
137908	11 11	11 11	J-15-95	3/20	3/15	R
137908	11	11 11:	J-15-92	3/19	3/15	R
137908	11	81 43 .	J-15-96		3/14	R
137908	987 88	û û	J-15-97		3/16	R
137908	81 11	ñ ñ	J-15-91	3/18	3/14	R
1.37908	11 11	ii ii	J-15-93		3/14	R
137908	321 33	11: II	J-15-101		3/15	R
137908	111 11	18:	J-15-98		3/14	R
137908	и и.	n n.	J-15-99		3/山	R
137908	11. 11	n ii	J-15-100		3/14	R
137908	tt tt	11 11	J-15-103		3/14	R
137908	f1 11	ii ii	J-15-106		3/14	R
137908	11 11	11 11 -	J-15-110		3/14	R
137908	ıı. Î	п п	J-15-108		3/15	R
137909	n ji	11 11	J-15-122		3/14	R
137909	n û	11 11	J-15-123		3/10	R R R
137909	n n	11 11	J-15-124		3/14	R
137909	n û	11 11	J-15-121		3/17	R
	п й	11 11	J-15-125		3/11 3/17	R
1.37909	n ñ	11 11	J-15-126		3/16	R
137909		11 11	J-15-127	3/18	3/15	R
137910		11 11		2/10	3/17	R R
137910	Ħ	14 41	J-15-130	3/19	2/14	n

-27Rating 5 (contd)

Company and an order of the company	Leaf.
First Lead	
	1951 type (1)
	3/14 R
	3/14 R
	3/15 R
	3/12 R
	3/11 R
	3/12 R
	3/13 R
	3/19 R
	3/14 R
137911 " J-15-144	3/14 R
	3/16 R
137912 " (Peach?) " " J-16-2 3/16	3/14 R
	3/16 R
	3/15 R
137912 " " J-16-18 3/18	R R
137912 " (Peach?) " " J-16-16 3/16	3/16 R
	3/15 R
	3/11 R
	3/17 R
13791), " " " J-16-33 3/21 1	3/19 R
	3/14 R
	3/17 R
	3/16,12 R
	3/7 R
	3/18,10 R
138966-13 " " " " E-6-25,26	3/10,12 R
138966-15 " " " E-6-33	3/16 R
	3/15 R
	3/19 R
141090 " " " J=17=72	3/17 R
	3/17 R
	3/26 R
141090 " " " J-17-96 3/17	3/12 R
	3/11 R
141091 " J-18-132 3/21 3	3/15 R
	3/14 R
141092 " J-18-137 3/20 3	3/15 R
141092 " (Peach?) " " J-18-133 3/22	3/15 R
141093 " " J-18-119 3/18	3/11 R 3/15 R
141093 " " " J-18-118	3/15 R
1):109): " " J-17-79 3/15	3/16 R
141094 " " J-17-80 3/14 1	3/14 R
1\109\1 " " J-17-81	3/15 R
141094 " " J-16-85	3/14 R
1\109\1 " J-16-88 3/13 3	3/15 R
1h109h " " J-17-75	3/15 R
11/109h " J-17-78	3/15 R
141094 " " J-17-84	3/11 R

-28-Rating 5 (contd)

			20000		,			Leaf
						First Le		gland
P.I.	Received	as clone	- Source -	Rating -		1.952	1951	type(1)
141095	Seedling	to his Total California Control on Agents on Agents on Agents on Agents of the Agents	Iran (2)		J-18-95	3/21	3/16	R
141095	11		11 11		J-18-100	3/19	3/16	R
141098	11	(Peach?)	FI 11		J-16-105	3/17	·	R
141101	Ħ	ff	TE 11		J-16-126	3/20	3/15	R
141101	33	11	11 11		J-16-127	3/20	3/15	R
141101	131	ध	11 11		J-16-129	3/20	3/15	R
141101	11	ij	11 11		J-16-128	3/21	3/17	R
141102	31		£1 £3		J-16-133	3/17	3/14	R
141102	ii.		ft. #f		J-16-137		3/14	R
141102	11		33 11		J-18-109		3/15	R
11,1102	ff.		EF 11		J-18-108		3/15	R
141702	17		11 11		J-18-113		3/16	R
141102	11.		n ii		J-18-115		3/16	R
141103	81		11 11		J-18-104		3/15	R
141103	45		51 71		J-18-10r		3/14	R
111103	11		18. 13		J-16-139		3/12	R
141103	11		21 81		J-16-140	3/18	3/12	R
141103	18		11 11		J-18-106		3/14	R
141103	11		11 21		J-18-107		3/14	R
141103	17	(Peach?)	11 11		J-16-141	3/17	3/7.4	R
141104	ij.	,	11		J-16-149	3/20	3/1.6	R
141104	11		91 11		J-16-144	3/19	3/15	R
141105	11		11 83		J-18-138	3/20	3/15	R
141111	11.		88 88		J-18-73	3/20	3/17	R
141111	\$\$,		11 11		J-18-76	3/21	3/18	R
141111	13		ti 11		J-18-81	3/16	3/17	R
111111	11		11 11		J-18-74	3/19	3/16	R
143904	Colora		U.S.A.		E-8-15,16	3/21,22	3/17	R
144642	Kette		11		E-8-31,35	3/24	3/12	R
145997		(Peach?)	Iran (2)		P-21-26	3/17	3/14	R
145997	11		11 13:		P-21-27	3/17	3/14	R
145997	11		11 13.		P-21-28	3/16	3/14	R
145997	13		\$1 If		P-21-29	3/16	3/14	R
145997	11		11 11		P-21-31	3/16	3/14	R
145997	11		n n		P-21-33	3/16	3/14	R
145997	11		ii ii		P-21-34	3/17	3/14	R
145997	11		31 11		P-21-37	3/17	3/14	R
145997	†1		H H		P-21-39	3/15	3/14	R
145997	11		n n		P-21-42	3/15	3/14	R
145997	TE .		11 11		P-21-45	3/16	3/14	R
145997	11		11 11		P-21-47	3/14	3/11	R
145997	38:		91 11		P-21-21	3/16	3/14	R
145997	11		88 11		P-21-22	3/15	3/14	R
145997	H,		£\$ 11		P-21-23	3/15	3/14	R
145997	11		\$1 13		P-21-24	3/18	3/14	R
145997	391		11 11		P-21-35	3/16	3/14	R
145997	11	(Peach?)	41 11		P-21-36	3/16	3/14	R
1.45997	11	(2020227)	11 11		P-21-43	3/16 3/16	3/14	R
					70	-/	-1	

-29-

Rating 5 (contd)

						Leaf
					Leafing	gland
P.I.	Received as clone	- Source - Rating .		1952	1951	type (1)
146014	Seedling	Iran (2)	P-23-24	3/17	3/15	R
146014	11	11 11	P-23-33	3/18	3/15	R
146016	" (nect)	11 11	P-21-1		3/15	R
146017	11 11	II II	P-21-48	3/18	3/15	R
146021	n n	n n	P-21-6	3/18		
146021	tf .	11 11	P-21-7	3/15	3/14	R
146021	" (nect)	11 11	P-21-18	3/19	3/15	
146021	ti ti	11 11	P-21-20	3/18	3/14	R
146030	tt tt	ii ii	P-24-20	3/18	3/16	R
146030	ti ti	ff. 21	P-24-21	3/17	3/14	R
146030	n n	11 11	P-24-22	3/16	3/16	R
146030	11	tt tt	P-24-23	3/18	3/15	R
146130	Chico 11 (3)	China (2)	E-15-19,20	,	3/23	R&G
148197	Chilow	U.S.A.	E-9-29		3/12	R
148620	Seedling	Iran (2)	P-24-38		3/1.2	R
148620	11	11 11	P-24-40		3/10	R
148623	" (nect.)	11 11	P-24-60	3/18	3/15	R
148624	11 11	11 11	P-24-63	3/17	3/15	R
148624	ıı ü	<u> ii</u>	P-24-61	3/15	3/15	R

Table 2. Accumulated percentages of the number of peaches and nectarines within a leaf curl group coming into first leafing in 1952 at successive dates, together with weather data recorded during this period.

									erusiones and museum cons			DIMOTANI COMA CINA DI LA CANTA DI LA CA						
c	eaf url ating	Total number within each						Days o	f firs	t leaf	ing -	Mar	ch 19	52				
g	roups	group	13	14	15	16	17	18	19	20	21	22	23_	24	25	26	27	28
	0	11	0	0	0	0	9.1	9.1	18.2	18.2	18.2	18.2	18.2	100.0	100.0	100.0	100.0	100.0
	0-0/1	16	0	0	0	0	12.5	12.5	18.8	18.8	25.0	31.2	56.2	62.5	75.0	100.0	100.0	100.0
	1	211	0.5	0.9	0.9	0.9	3.3	5.2	11.4	19.4	30.8	46.0	66.8	78.7	90.5	94.8	98.1	100.0
	2	148	0	: .4	2.0	4.1	9.5	16.9	29.7	48.6	59.5	69.6	85.8	95.3	96.6	99.3	99.3	100.0
	3	188	0	1.6	4.3	11.2	20.2	31.4	49.5	66.5	78.7	88.3	94.2	98.4	99.5	99.5	100.0	100.0
	24	160	0	0.6	5.0	15.0	32.5	45.6	66.9	80.0	86.9	91.9	98.1	100.0	100.0	100.0	100.0	100.0
	5	126	1.6	4.0	11.9	23.8	35.7	51.6	62.7	82.5	93.6	99.2	99.2	100.0	100.0	100.0	100.0	100.0
ಪ		max.	52	45	47	49	52	58	55	56	60	64	64	76	81	80	76	77
රිසු දිනි	temp.	min.	36	37	42	36	71]	<u> 7</u> 474	40	28	28	28	33	45	47	39	41	52
Weather		ppt.	.14	.62	.70	. 24	~	.18	9	-	ca .	~	erb	~	~	=	æ	=
We	1 0 2	high	94	92	95	95	88	94	91	89	88	71	81	85	83	90	80	77
Collebour - cal Egy 2	humidi	lty low	42	46	72	60	63	38	34	31	28	28	42	47	37	24	31	39

Table 3. Relationship between leaf gland types of peaches and nectarines and degree of leaf curl infection. Data arranged on an accumulated percentage basis of each gland type in ascending order of their leaf curl rating.

PEACHES

NECTARINES

Leaf Curl	Total number			percent and type		Total number		lative pach gla	•	ıge
Ratings	trees	E	G	R	R&G	trees	E	G	R	R&G
C	20	3.4	7.9	0.3	0.0	9	50.0	0.0	1.1	0.0
0-0/1	20	10.2	15.3	0.3	4.2	2	50.0	8.3	1.1	0.0
1	259	83.0	141.9	16.8	25.0	92	100.0	91.7	25.1	0.0
2	235	93.2	74.0	35.1	39.6	93	100.0	100.0	55.3	57.1
3	265	100.0	93.1	59.3	50.0	69	100.0	100.0	80.4	57.1
4	203	1.00.0	99.5	79.3	68.7	44;	100.0	100.0	94.9	85.7
5	204	100.0	7.00.0	100.0	100.0	16	100.0	100.0	100.0	100.0

Total

1206

325

